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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/978,018	10/17/2001	Hideki Takauchi	100021-00062	3806

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EXAMINER

NGUYEN, MINH T

ART UNIT	PAPER NUMBER
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2816

DATE MAILED: 04/07/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application N .

09/978,018

Applicant(s)

TAKAUCHI ET AL.

Examin r

Minh Nguyen

Art Unit

2816

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 March 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 13 January 2003 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 3/5/03 has been entered.

2. Claims 1-23 are pending. The request for cancellation of claim 9 (page 2 of the response on 3/5/03) has not been entered because it is unclear why claim 9 is also amended in the same response (page 9).

Clarification is required.

Claim Objections

3. Claim 9 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim, or amend the claim to place the claim in proper dependent form, or rewrite the claim in independent form. Replacing the first and third transistors by a common transistor as recited in claim 9 is not seen as further limit claim 3.

Claim Objections

4. Claim 5 is objected to because of the following informalities: last line (the clean version), “, and” should be replaced by -- . --.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As per claim 1, the claim is rejected as being incomplete because the claim does not recite a structural relationship between the first termination resistor block and the second terminal resistor block, i.e., merely a list of “catalogue of elements”. *See In re Collier, 158 USPQ 266* for further discussion.

As per claim 2, the claim is rejected because of the indefiniteness of claim 1.

As per claim 3, the claim is rejected as being incomplete because the claim does not recite a structural relationship between the first termination resistor block and the second terminal resistor block.

As per claim 5, the claim is rejected as being incomplete because the claim does not recite a structural relationship between the first termination resistor block and the second terminal resistor block.

As per claims 4, 6-9, these claims are rejected because of the indefiniteness of claim 3.

As per claim 9, the limitation the first and third transistors are replaced by a common transistor recited in the claim is indefinite because it is unclear now if the common transistor is in the first or a second termination resistor block in order to satisfy the switching requirement recited on the last two lines of claim 3.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

Claims 1-6, 8-15 and 17-23 are rejected under 35 U.S.C. 102(e) as being anticipated by US Patent No. 6,323,673, issued to Starr.

As per claim 1, Starr discloses a termination resistor circuit (Fig. 2), provided in an interface circuit through which signals are transferred, comprising:

a first termination resistor block (202) having a first plurality of transistors (Fig. 3E, also see column 5, lines 45-60) including at least one diode connected transistor (as shown in Fig. 3E); and

a second termination resistor block (204) having a second plurality of transistors (Fig. 3B, also see column 5, lines 45-60) including no diode connected transistor; and wherein :

said termination resistor circuit is switched between said first termination resistor block and said second termination resistor block (because the pull-up 202 or pull down 204 can be enabled or disabled).

As per claim 2, see Fig. 3E, same type and Fig. 3B, different type.

As per claim 3, Starr discloses a termination resistor circuit (Fig. 2), provided in an interface circuit through which signals are transferred via a transmission line (as shown, 214), comprising:

a first termination resistor block (202) having a plurality of transistors (Fig. 3E, also see column 5, lines 45-60), a gate of at least one of the transistors of the first termination resistor block being applied with a supply voltage or a voltage of the transmission (the voltage applied to the gates of transistors shown in Fig. 3E); and

a second termination resistor block (204) having a plurality of transistors (Fig. 3B, also see column 5, lines 45-60), which differs in configuration from the first termination resistor block (Figs 3E and 3B are different);

said termination resistor circuit is switched between said first termination resistor block and said second termination resistor block (because the pull-up 202 or pull down 204 can be enable or disable).

As per claim 4, this claim is rejected for the same reason noted in claim 2.

As per claim 5, this claim is rejected for the same reasons noted in claim 1.

As per claim 6, the limitation recited in the claim is always met since the specific sizes of transistors shown in Fig. 3E are chosen to have the specific chosen weights.

As per claim 8, the limitation recited in the claim is always met since the specific sizes of transistors shown in Figs. 3E and 3B are chosen to have the specific chosen weights.

As per claim 9, the recited limitation is met by replacing Fig. 3B with Fig. 3A.

As per claim 10, this claim is rejected for the same reasons noted in claim 1, and further, the recited signal transmission system is disclosed in Fig. 2, the recited transmitting circuit reads on the one of the circuits 106, the recited transmission line reads on the bus 214, the recited receiving circuit reads on the other one of the circuits 106 and the recited termination resistor circuit reads on the circuit inside the transmission circuit (also see Fig. 1 for a clearer display of the system).

As per claim 11, this claim is rejected for the same reason noted in claim 2.

As per claim 12, this claim is rejected for the same reasons noted in claims 10 and 3.

As per claim 13, this claim is rejected for the same reason noted in claim 4.

As per claim 14, , this claim is rejected for the same reasons noted in claims 10 and 5.

As per claims 15 and 17, these claims are rejected for the same reasons noted in claims 6 and 8, respectively.

As per claim 18, this claim is rejected for the same reason noted in claim 9.

As per claim 19, this claim is rejected for the same reasons noted in claims 10 and 1.

As per claims 20-22, these claims are rejected for the same reasons noted in claims 2-4, respectively.

As per claim 23, this claim is rejected for the same reasons noted in claims 1 and 10.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 7 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 6,323,673 to Starr.

As per claim 7, Starr discloses a termination resistor circuit which comprises elements and connections as discussed in claim 4 herein above.

Starr does not explicitly teach the transistors in the first and second termination resistor blocks are equal in size as called for in the claim.

However, choosing the size of transistors to obtain the desired result in a circuit for a certain application in which the circuit has identical structure involves only routine experimentation, and is within the level of one skilled in the art. MPEP 2144.05.

It would have been obvious to one skilled in the art at the time of the invention was made to choose the sizes of the transistors in the first and second termination resistor blocks of the Starr circuit to be equal in size.

The motivation/suggestion for doing so would have been obvious since it would have been easier to manufacture a lot of transistors having the same size than to manufacture a lot of transistors having different sizes.

As per claim 16, this claim is rejected for the same reason noted in claim 7.

Response to Arguments

8. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Minh Nguyen whose telephone number is 703-306-9179. The examiner can normally be reached on Monday - Thursday 7:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Callahan can be reached on 703-308-4876. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9318 for regular communications and 703-872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.



Minh Nguyen
Examiner
Art Unit 2816